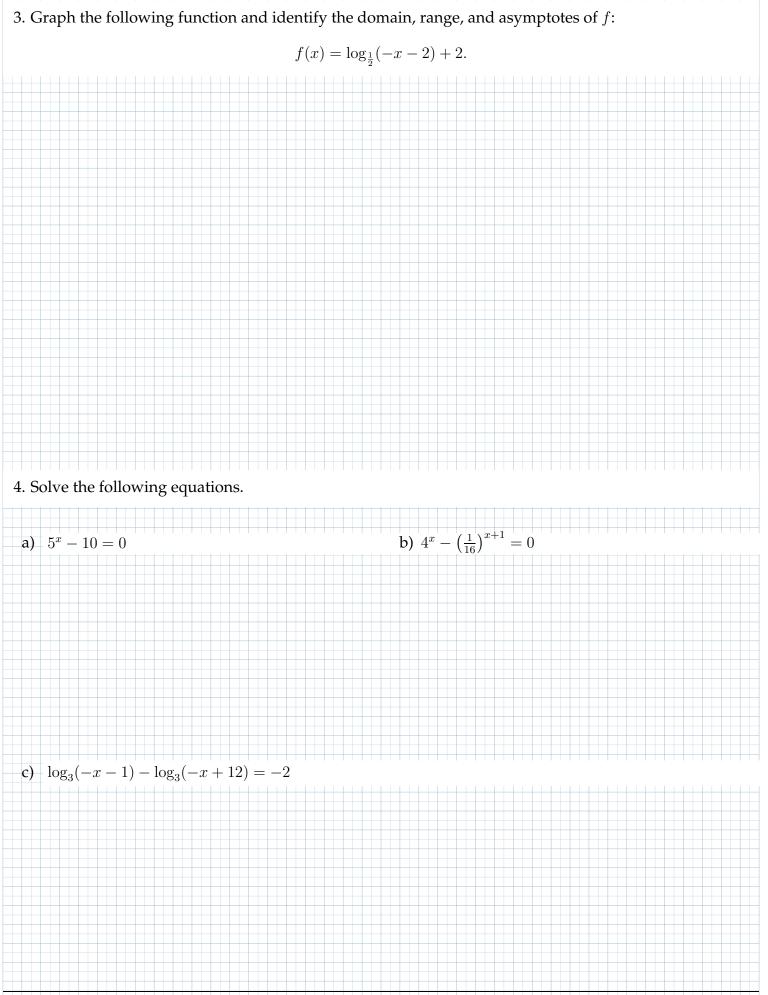
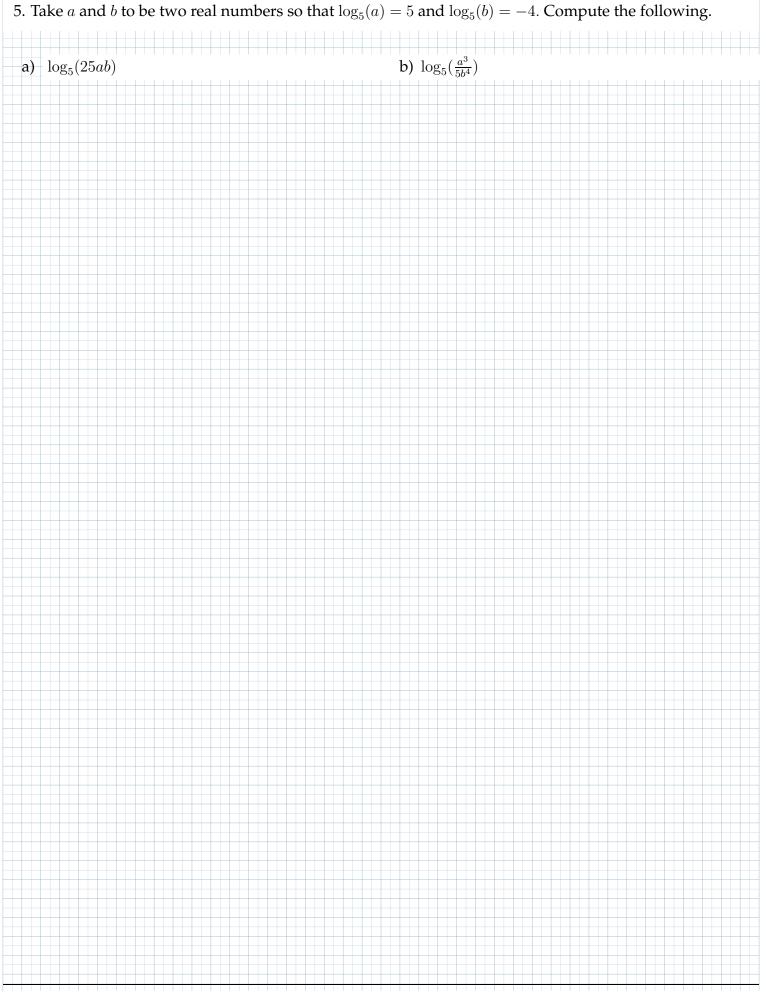


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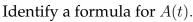
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6. A quantity *A* changes according to a linear model for change and

$$\begin{cases} A(0) = 4\\ A(1) = 13. \end{cases}$$

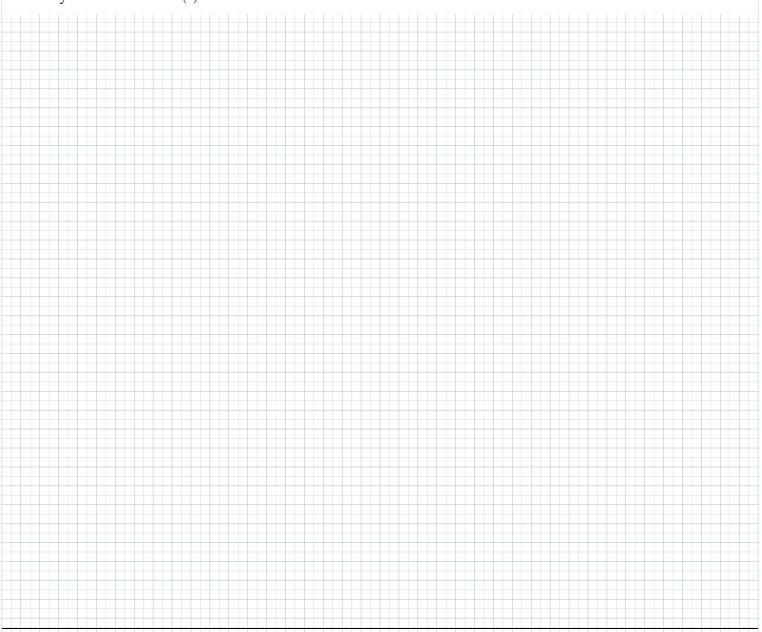




7. A quantity *A* changes according to an exponential model for change and

$$\begin{cases} A(2) = 10\\ A(5) = 9. \end{cases}$$

Identify a formula for A(t).



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8. A mass of bacteria experiences exponential growth. At time 3 an experimenter has 30 grams of bacteria. At time 7, the mass has grown to a mass of 50.

a) Determine the doubling time of the bacteria.

Determine the time that it takes for the amount of the material to increase by a factor of 3.

b)

c) Determine the growth rate of the substance.

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